**Amendments to the Specification - Page 5**

content.

The method of the invention is depicted in block diagram form, generally at 10, in Fig. 1, and includes the steps of:

1. Preparation of a silicon substrate and deposition of a SiGe layer thereon, block 12.
2. Implantation of hydrogen ions, block 14.
3. Preparation of a glass substrate, block 16.
4. Surface treatment of the glass substrate and bonding of the SiGe layer to the glass substrate, block 18.
5. Thermal annealing, at a temperature of between about 350°C to 700°C for between about 30 minutes to four hours, of the bonded structures to facilitate wafer splitting, block 20.

In a variation of the method of the invention, a layer of epitaxial silicon may be deposited on the SiGe after proper process, *e.g.*, after SiGe deposition, to reduce SiGe layer thickness and to smooth the surface by CMP or oxidation and etching.

Fig. 2 depicts a step of silicon substrate 22 preparation and epitaxial SiGe layer 24 deposition on silicon wafer 22. The germanium concentration is in a range of between about 10% to 60%, and may be graded or of uniform concentration throughout the SiGe layer. SiGe layer 24 has a thickness of between about 20 nm to 1000 nm. SiGe layer 24 is under biaxial compression strain and no relaxation occurs at this time.

Fig. 3 depicts the hydrogen ion implantation step 26, wherein $H^+$ or $H_2^+$ ions are implanted into SiGe layer 24. The dose is in a range of between about $1x10^{16}cm^{-2}$ to $5x10^{17}cm^{-2}$, and the energy is in a range of between about 1 keV to 300 keV. Other gases, such as argon, helium, and/or boron may also be used or added in the implant step. The hydrogen is implanted in the



PAGE 4/10 * RCVD AT 10/7/2004 5:16:51 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-1/1 * DNIS:8729306 * CSID:13608178505 * DURATION (mm-ss):03-22